What is claimed is:

1. A method for adjusting a target bit rate for a frame, said method comprising the steps of:

(a) determining a picture quality measure of a current frame for a particular frame type;

(b) determining a picture quality measure for each of a plurality of immediately previous frames corresponding to said frame type of said current frame;

(c) computing an average picture quality measure from said picture quality measures of said plurality of immediately previous frames;

(d) computing a difference between the average picture quality measure and the picture quality measure of said current frame for producing a resultant value;

(e) comparing the resultant value to a threshold value for producing a comparing result; and

(f) adjusting said target bit rate in response to said comparing result.

2. The method of claim 1, wherein said frame type is an intra-frame.

3. The method of claim 1, wherein said frame type is a predicted frame.

4. The method of claim 1, wherein said frame type is a bi-directional predicted frame.

5.   The method of claim 1, where said adjusting step (f) comprises the step of:

reducing said target bit rate if said resultant value is less than said threshold value.

6.   The method of claim 1, where said adjusting step (f) comprises the step of:

increasing said target bit rate if said resultant value is greater than said threshold value.

7.   The method of claim 1, wherein said picture quality measure is a just noticeable difference (JND) measure.

8.   The method of claim 1, wherein said picture quality measure is a peak signal to noise ratio (PSNR) measure.

9.   The method of claim 1, wherein said picture quality measure is a mean square error (MSE) measure.

10.   The method of claim 1, wherein said current frame is considered one of said plurality of immediately previous frames for computing said average picture quality measure.

11.   A computer readable medium having stored thereon a plurality of instructions including instructions which, when executed by a processor, causes the processor to perform a method comprising the steps of:

(a) determining a picture quality measure of a current frame for a particular frame type;

(b) determining a picture quality measure for each of a plurality of immediately previous frames corresponding to said frame type of said current frame;

(c) computing an average picture quality measure from said picture quality measures of said plurality of immediately previous frames;

(d) computing a difference between the average picture quality measure and the picture quality measure of said current frame for producing a resultant value;

(e) comparing the resultant value to a threshold value for producing a comparing result; and

(f) adjusting said target bit rate in response to said comparing result.

12.   Apparatus for encoding an input image sequence having at least one input frame, where said frame is partitioned into at least one block, said apparatus comprising:

a block motion compensator for computing a motion vector for the block and for generating a predicted image using said motion vector;

a transform module for applying a transformation to a difference signal between the input frame and said predicted image, where said transformation produces a plurality of coefficients;

a quantizer for quantizing said plurality of coefficients with a quantizer scale;

a controller for adjusting a target bit rate for a current frame in response to comparing a difference of a picture quality measure of said current frame and an average picture quality measure of a plurality of immediately previous frames corresponding to a frame type of said current frame to a threshold value; and

a coder for coding said plurality of quantized coefficients.

13. The apparatus of claim 12, wherein said frame type is an intra-frame.

14. The apparatus of claim 12, wherein said frame type is a predicted frame.

15. The apparatus of claim 12, wherein said frame type is a bi-directional predicted frame.

16. The apparatus of claim 12, wherein said controller reduces said target bit rate if said resultant value is less than said threshold value.

17. The apparatus of claim 12, wherein said controller increases said target bit rate if said resultant value is greater than said threshold value.

18. The apparatus of claim 12, wherein said picture quality measure is a just noticeable difference (JND) measure.

19. The apparatus of claim 12, wherein said picture quality measure is a peak signal to noise ratio (PSNR) measure.

20.   The apparatus of claim 12, wherein said picture quality measure is a mean square error (MSE) measure.

21.   The apparatus of claim 13, wherein said current frame is considered one of said plurality of immediately previous frames for computing said average picture quality measure.